CLAIMS

What is claimed is:

1. A method, comprising:

detecting whether a floppy disk operation is a write; and,

masking DMA requests from at least one DMA channel during said write

thereby preventing data corruption.

2. The method of claim 1, wherein said masking DMA requests is only during a portion of said write.

3. The method of claim 1, wherein said masking DMA requests is during all of said write.

4. The method of claim 1, wherein said detecting and said masking is accomplished by said floppy disk driver routine.

5. The method of claim 1, wherein said masking is accomplished by a timer interrupt service routine.

6. The method of claim 1, comprising:

providing a timer interrupt service routine that accomplishes said masking.

7. The method of claim 6, comprising:

reprogramming a timer to interrupt at a more rapid rate.

8. The method of claim 6, comprising:

reading a DMA byte count.

9. The method of claim 8, comprising:

accomplishing said masking after said DMA byte count reaches a threshold.

10. The method of claim 8, comprising:

estimating when said write will complete from said DMA byte count.

11. The method of claim 10, wherein said estimating includes a linear
interpolation.

12. The method of claim 10, wherein said estimating includes a least squares
fit method.

13. The method of claim 10, wherein said estimating includes a polynomial fit
method.

14. The method of claim 10, comprising:

determining a time to accomplish said masking based upon a result of said

step of estimating.

15. An apparatus, comprising:

a floppy disk controller receiving data via DMA accesses under the control of

a DMA controller wherein said DMA controller ignores at least one

DMA request line when an underrun error may occur.

16. The apparatus of claim 15 wherein said DMA controller ignores said at

least one DMA request line for a transfer of data comprising a whole sector.

17. The apparatus of claim 15 wherein said DMA controller ignores said at

least one DMA request line for a transfer of data comprising less than a whole

sector.

18. The apparatus of claim 15 wherein said DMA controller ignores said at

least one DMA request line after a threshold number of bytes have been

transferred.

19. The apparatus of claim 15 wherein said DMA controller ignores said at

least one DMA request line after a first time period has elapsed.

20. The apparatus of claim 15 wherein said DMA controller ignores said at

least one DMA request line a second time period before a transfer of a last

byte.

21. The apparatus of claim 20 wherein said second time period is based upon

an estimate of when said transfer of said last byte will occur.

22. The apparatus of claim 21 wherein said estimate is derived by monitoring a DMA byte count.

23. The apparatus of claim 21 wherein said estimate is derived by monitoring a system clock.

24. The apparatus of claim 21 wherein said estimate is based upon samples taken of a DMA byte count and a system clock.

25. The apparatus of claim 24 wherein said samples are interpolated linearly to produce said estimate.

26. The apparatus of claim 24 wherein said samples are input to a least squares fit process to produce said estimate.

27. The apparatus of claim 24 wherein said samples are input to a polynomial curve fitting process to produce said estimate.

28. An apparatus, comprising:

a DMA controller in communication with a floppy disk controller; and,

means for masking at least one DMA request line when a DMA underrun may occur due to an improperly designed floppy disk controller.

29. The apparatus of claim 28 wherein said at least one DMA request line is masked based upon an estimate generated by a means for estimating.

30. The apparatus of claim 29 wherein said means for estimating includes means for linear interpolation.

31. The apparatus of claim 29 wherein said means for estimating includes means for performing a least squares fit analysis.

32. The apparatus of claim 29 wherein said means for estimating includes means for performing a polynomial fit analysis.

33. A program storage medium readable by a computer, tangibly embodying a program of instructions executable by a computer to perform method steps, said method steps comprising:

detecting whether a floppy disk operation is a write; and,

masking DMA requests from at least one DMA channel during said write thereby preventing data corruption.

34. The program storage medium of claim 33, wherein said masking DMA requests is only during a portion of said write.

35. The program storage medium of claim 33, wherein said masking DMA requests is during all of said write.

36. The program storage medium of claim 33, wherein said detecting and said masking is accomplished by said floppy disk driver routine.

37. The program storage medium of claim 33, wherein said masking is accomplished by a timer interrupt service routine.

38. The program storage medium of claim 33, comprising:

providing a timer interrupt service routine that accomplishes said masking.

39. The program storage medium of claim 38, comprising:

reprogramming a timer to interrupt at a more rapid rate.

40. The program storage medium of claim 38, comprising:

reading a DMA byte count.

41. The program storage medium of claim 40, comprising:

accomplishing said masking after said DMA byte count reaches a threshold.

42. The program storage medium of claim 40, comprising:

estimating when said write will complete from said DMA byte count.

43. The program storage medium of claim 42, wherein said estimating includes a linear interpolation.

44. The program storage medium of claim 42, wherein said estimating includes a least squares fit method.

45. The program storage medium of claim 42, wherein said estimating includes a polynomial fit method.

46. The program storage medium of claim 42, comprising:

determining a time to accomplish said masking based upon a result of said step of estimating.